Figure 1: Predicted protein sequence of mGγ12 (SEQ ID NO:1)

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1   MSSKTASTNS IAQARRTVQQ LRLEASIERI KVSKASADLM SYCEEHARSD

51  PLLMGIPTSE NPFKDKKTCI IL*
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Figure 2: cDNA sequence of mGγ12 variant 1 (SEQ ID NO:2)

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1    CTAGAATTCA GCGGCCGCTG AATTCTAGGC GACGACGGCG AAGAGTGAGT
51   GCCAAGGTTC ATATGGGAAG GACTTTGGGG TGAGCATCTT CTCTATTTCC
101  AGCTGGCTTT TCTGATTTTC AGAAAGAAGA CTCATCAAAG ATGTCCAGCA
151  AGACGGCAAG CACCAACAGC ATAGCCCAAG CCAGGAGAAC TGTGCAGCAG
201  CTGAGATTGG AAGCCTCCAT CGAAAGAATA AAGGTCTCAA AAGCATCAGC
251  AGACCTGATG TCATACTGTG AGGAGCATGC CCGGAGCGAC CCCCTGCTGA
301  TGGGCATACC GACCTCAGAA AACCCGTTCA AGGATAAGAA GACCTGCATC
351  ATCTTATAGT GGACCAGGAA GCGCCCCTTG CCTCTTAACG CAAACCACAG
401  CAGCAACCTG AAGGGATTCC TTCAGCTTAC CTGGTAACCA CAGCTAGTAA
451  CTAAAACACC CTTCTCTCGG AATAATAGAC CCTGAAGTCT CTCTTTTTCA
501  AGTTGTCCTT TCTTCACCCT TTACTGATTT AATACAGAAT AACAATCTTA
551  TTTTCTATTT GATAACTATG GTATCATATT GGGTTACTGT ATAAGGAAAA
601  TGGCAGGGGA GTTGTGGGAA GCTTGTCTTT ACAAAATATA ATTGATTAAG
651  ATATGTCAAG ACCTACATTG TCTAAGCACC GGCAAATTAA AATGTCGAGA
701  ATCACTTCAG TCAAAAACCT TTATATTCTG TTCTTAATAA TGTTTGTGCC
751  AACCTATATC CCATGTAAGG GATCTGGGGA GGAGGCATGT GTCTACAACC
801  ATACCTTTTT GCACTATGGG CACTAACCAC CCTGAAACTT CCTGCGGTAG
851  CTCCCTCCCT TCAGAGTTAC ATCATTATCC TGACTCTGTG TAGGTAAATT
901  TCCGTGAAAT TTTTGTACAA AAAAAAGGTA ATGAAAGAAC GTTGCAAAGA
951  TCATCTGCAT TATAATGAGT TGATGCTGTT CTCACTCCTC TCTTGGAATT
1001 GTGCTGGCCC CTTAGTCTAC AATAAACTGT GCCAATTAAA AACCTAAGGC
1051 TAAAACTGAA AGCCCTTTGA TGGGGTCTTA ACTCATATCA GTCATTTGGG
1101 CTTCTCTGAT CCTGAGGCTA AGAAAGGGGA AGAGACCCTC AGGAGGCAGC
1151 TTCCACTCCA GGGCTCTTGA TCTCTGCTGG ATTGGGGGTG GCCACCTCAG
1201 AAACTTCCAC CCTCATGACT GGAATGGAAG AGGGGACCGA GAGCCTCACA
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1251 ATCTCGGAGA GGGAGGAGAA ATTCTTAAAA ACAGCTGCTC TCCTGCGCCC

1301 AGCTTCACAG GCAGCCCTGC CCCTTTCTCC TCACCAGCAT GGTACCTGCC

1351 CTTACTGCTA GAGCAGCTGC TTGTAGAGGG ACATTCCCTC CTTCCCAGTT

1401 TTAACTGGTG GACCACAGTG GGGGGAAAAA CATTCAAGCG ATATAAAGAC

1451 ACTTGGGCTC TTTGCAGATG CCTATACTTC CAACACTACC ATGTCCACAA

1501 ACCACCCTGG GGGAGGGCCC TTCCAAAGGG AGGCTTGCTA GTTTCAGCGT

1551 CTAGCAGTTG GGTCCTCACT TTTACTCCAA TTGTGAAAAT AGCCCACGTA

1601 CCCTCGCAGT GTCCAGTAGG GATCCCAGAG GCACATAACC AAGAAAGGAT

1651 TTTGACTTTG TCACAGTGAC TATTTAAAAT AATCTATTCG AAGTCCAAAC

1701 CAAACACAAA GCCTGTGATA TTTTAGGTTA TTAAGGTAAC TGCTAATGAA

1751 GGATTTTAAA AAGTGTCCTC AAAAAGGACT TAGCCCCGGG AGTTGTTTAT

1801 AAAATTTCCC CCACTTGTAT ACAGTGTGCA CTAAAAGAAA ATGTATTTTA

1851 ATATCTAATG CCTGGGCTCT GAGCGTCATG CTTCTTGGTG GTAAACATGC

1901 AGTCCTGTTC CTAAGTGACT CAGAGGCATC AGAATTTCTC CACGTTACCC

1951 ATCTGCTTGG CACTCGGAAC TGAGCGTGTG AAATCCATAG CGCTGCCCAC

2001 AACCTGTTCT CACTGCTTAG CTCCCAGCTG GATTAAAGAC ACCTGCTCAG

2051 GCGGGAGAGA GAGAGAGAGA GCGAGCTTTT ACCTTGGAAA AGGTAAAGAT

2101 GGAAATGTAC ACCAAAAAAG ACAATTTTTA CATTTAATGG AACATTCTTT

2151 TTTTTTACAA GTATATTTTT CTACTGATAG TTTCAGAACA CTAATCTTAT

2201 ATTCACTCTA ATCTTAAACA TGTTTCTTTA AATATTTATA AGGCAGTTTA

2251 TTACAGAATA TTTTCATGCA ATCATGTGCA CATTATTGGT AGCAAACATA

2301 GTATATCCTT TAGTACTTTA GCATATTTTT GTTAAAATAC TTTTAATGGT

2351 AAGAAATGAA CTTGAGGTCC CAGGAGGTTT TGTTGCCTTT TCATTGATTA

2401 GAGACAATAA ATATCTTGTA ACTTCCTAAC CAGATCTGAG CTGTGCTCAC

2451 AATAATAATA ATGAAATCAG ATTCTTTGAT GCTGGACTCA GGAGGGAAAT

2501 CATTAGCCAA CTGTTGACTT ACTTATAGCT AGATGTCTAT GTGAGAAAGT

2551 ATAATATATA TATATACACA TATATATGAC ATGTAAGAGT CACTTTTATT

2601 TATCTGTCTT TGTTCACTTA TGAAGCCGGT AACTGCAGCA GTATGTTGGT

2651 GATGTCATGA TGCACAGAAG TCCCATGTGG AGTGTTTTTC CCACACTGAC

2701 AACTTGGCCT CCTTTCTGTG TGTTCAGTCT GTTGTCTGAA CTAACACTCC

2751 CGCGAGCACT ATACTCTTTA TACTCTGATC CCCCTAGTTC ATCTTAAATT

2801 TGTCTGTGGC CCTGGCAAGA TAGCGTACAC AAGATTCCAT GACTCCAGAG

2851 CATCTTGAAG AAACATACAT ATTTTGAAAG AGGGGAAATG TAGCAGATAG

2901 TTCACAAGCT GCGGGTTGTA GCTAAATATT CCATTTCTTT GAAATCATGT

2951 TTCTAAATTC TTTACCATCA GAAAGAAAAG GAGTGTCATA CACTTTCAAG

3001 GGAAGGCTTG GTCTGCGTTT TCTGTGTTTG GATTATTTTT ATACTTTGCT

3051 GATCTTTAAG CTATCCATGG GGGAAATTTT ATACCAACGA GTTAATAATT

3101 CTCATTCATC GTTTACACAA TGTAACATGT GTCATACTGG GGCCAGCGAG

3151 ATGGCTCAGT AGGTAAAGGT GCTTGATGCT AAGCCCGGCA GCCTGTGTTT

3201 CATCTACAGG ATGCACAACA TAAAAGAAAA GATCTGATTC CCACAGGTTC

3251 TCTTCTGACC TACACACACA CACACTAAAA TAACATTTAA AAATATGTGC

3301 CAAATTATAT TTGTTCGGGT GCCACCTTCC ACCAGCTTAC CACTACGGTA

3351 GAACTGTCAA ATTCATCTCC CTGAATTTGT CTTAAAGGGG TGTCCATGCA

3401 CAGGCCCAAG AGTCACCTCC AATGAAATAA ATGTAATACT GAAGTATGCC

3451 ATGATGTTTG TTGTTTTCTT TCATCGTAAG CCTGTAAGCA GGAAAAATAC

3501 GTCAAATCAG ATAGAATAGA GCATTTACCA GTGGTCGATG GCCTGGTCAG

3551 TCCTGTGCCG GGTGACTTAG GACCAGGCAC GTCAGCTCTC TGAGCCTCCC

3601 CTTCCCTTGT TGTCACAAGG GAATAGAAGC AGAAGAAGCT GAGAGCCTCC

3651 CTATTCCCAG ATGCCCTGGT GGAATGACCT GCCTCTCTGC CGTTTCTGCC

3701 AACGTGTTGG TGCTATAAGC TGCTTCAAAT ACCAGTTTGT CTGTAGTGTG

3751 TACTCACCTA ATCACTTGTT ATCCAGTGCC TGTTCTAGGT TTATGGACTT

3801 AACTATTTCT GTGATGTTTC ATTTTTAGCC ATGTTAACTC CTAACACATA

3851 TTCTCTTATG TCTCAGTAAA GTTTCATTTG ATAAGTTGTT GAGATTCTGT

3901 TATTTGATAA TATTCTTCGG CTGTCCATCC AGCATCTTAA TCACTTTAAA

3951 ACTGTGATTG TTATTTGCAA CTCTGTTCTT TGGAAAGAAT AAAAGCATTT

4001 TTTTTCACTT GCTAACATGC TCACAAATGT GAGAGAAGAG TCATTAAAAG

4051 CTTTACTTAC TGGGTCAGTG CGTCATTGAC TCCTTTCTGT GTTTTGCCCA

4101 ATAAATTAAT AAAAGACCAA AAAAAAAAAA AAAAAAAAAA AAAAAAA

Figure 3: cDNA sequence of mGγ12 variant 2 (SEQ ID NO:3)

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1     GCAGCGGCGG CGGCGGCGAC GACGGCGAAG AGTTCATATG GGAAGGACTT
51    TGGGGTGAGC ATCTTCTCTA TTTCCAGCTG GCTTTTCTGA TTCACCCCAC
101   CATTTAAAAC CTGGAGGCAC TGGGCCACAC AAAGCCTTGC TGATTTTCAG
151   AAAGAAGACT CATCAAAGAT GTCCAGCAAG ACGGCAAGCA CCAACAGCAT
201   AGCCCAAGCC AGGAGAACTG TGCAGCAGCT GAGATTGGAA GCCTCCATCG
251   AAAGAATAAA GGTCTCAAAA GCATCAGCAG ACCTGATGTC ATACTGTGAG
301   GAGCATGCCC GGAGCGACCC CCTGCTGATG GGCATACCGA CCTCAGAAAA
351   CCCGTTCAAG GATAAGAAGA CCTGCATCAT CTTATAGTGG ACCAGGAAGC
401   GCCCCTTGCC TCTTAACGCA AACCACAGCA GCAACCTGAA GGGATTCCTT
451   CAGCTTACCT GGTAACCACA GCTAGTAACT AAAACACCCT TCTCTCGGAA
501   TAATAGACCC TGAAGTCTCT CTTTTTCAAG TTGTCCTTTC TTCACCCTTT
551   ACTGATTTAA TACAGAATAA CAATCTTATT TTCTATTTGA TAACTATGGT
601   ATCATATTGG GTTACTGTAT AAGGAAAATG GCAGGGGAGT TGTGGGAAGC
651   TTGTCTTTAC AAAATATAAT TGATTAAGAT ATGTCAAGAC CTACATTGTC
701   TAAGCACCGG CAAATTAAAA TGTCGAGAAT CACTTCAGTC AAAAACCTTT
751   ATATTCTGTT CTTAATAATG TTTGTGCCAA CCTATATCCC ATGTAAGGGA
801   TCTGGGGAGG AGGCATGTGT CTACAACCAT ACCTTTTTGC ACTATGGGCA
851   CTAACCACCC TGAAACTTCC TGCGGTAGCT CCCTCCCTTC AGAGTTACAT
901   CATTATCCTG ACTCTGTGTA GGTAAATTTC CGTGAAATTT TTGTACAAAA
951   AAAAGGTAAT GAAAGAACGT TGCAAAGATC ATCTGCATTA TAATGAGTTG
1001  ATGCTGTTCT CACTCCTCTC TTGGAATTGT GCTGGCCCCT TAGTCTACAA
1051  TAAACTGTGC CAATTAAAAA CCTAAGGCTA AAACTGAAAG CCCTTTGATG
1101  GGGTCTTAAC TCATATCAGT CATTTGGGCT TCTCTGATCC TGAGGCTAAG
1151  AAAGGGGAAG AGACCCTCAG GAGGCAGCTT CCACTCCAGG GCTCTTGATC
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1201 TCTGCTGGAT TGGGGGTGGC CACCTCAGAA ACTTCCACCC TCATGACTGG

1251 AATGGAAGAG GGGACCGAGA GCCTCACAAT CTCGGAGAGG GAGGAGAAAT

1301 TCTTAAAAAC AGCTGCTCTC CTGCGCCCAG CTTCACAGGC AGCCCTGCCC

1351 CTTTCTCCTC ACCAGCATGG TACCTGCCCT TACTGCTAGA GCAGCTGCTT

1401 GTAGAGGGAC ATTCCCTCCT TCCCAGTTTT AACTGGTGGA CCACAGTGGG

1451 GGGAAAAACA TTCAAGCGAT ATAAAGACAC TTGGGCTCTT TGCAGATGCC

1501 TATACTTCCA ACACTACCAT GTCCACAAAC CACCCTGGGG GAGGGCCCTT

1551 CCAAAGGGAG GCTTGCTAGT TTCAGCGTCT AGCAGTTGGG TCCTCACTTT

1601 TACTCCAATT GTGAAAATAG CCCACGTACC CTCGCAGTGT CCAGTAGGGA

1651 TCCCAGAGGC ACATAACCAA GAAAGGATTT TGACTTTGTC ACAGTGACTA

1701 TTTAAAATAA TCTATTCGAA GTCCAAACCA AACACAAAGC CTGTGATATT

1751 TTAGGTTATT AAGGTAACTG CTAATGAAGG ATTTTAAAAA GTGTCCTCAA

1801 AAAGGACTTA GCCCCGGGAG TTGTTTATAA AATTTCCCCC ACTTGTATAC

1851 AGTGTGCACT AAAAGAAAAT GTATTTTAAT ATCTAATGCC TGGGCTCTGA

1901 GCGTCATGCT TCTTGGTGGT AAACATGCAG TCCTGTTCCT AAGTGACTCA

1951 GAGGCATCAG AATTTCTCCA CGTTACCCAT CTGCTTGGCA CTCGGAACTG

2001 AGCGTGTGAA ATCCATAGCG CTGCCCACAA CCTGTTCTCA CTGCTTAGCT

2051 CCCAGCTGGA TTAAAGACAC CTGCTCAGGC GGGAGAGAGA GAGAGAGAGC

2101 GAGCTTTTAC CTTGGAAAAG GTAAAGATGG AAATGTACAC CAAAAAAGAC

2151 AATTTTTACA TTTAATGGAA CATTCTTTTT TTTTACAAGT ATATTTTTCT

2201 ACTGATAGTT TCAGAACACT AATCTTATAT TCACTCTAAT CTTAAACATG

2251 TTTCTTTAAA TATTTATAAG GCAGTTTATT ACAGAATATT TTCATGCAAT

2301 CATGTGCACA TTATTGGTAG CAAACATAGT ATATCCTTTA GTACTTTAGC

2351 ATATTTTTGT TAAAATACTT TTAATGGTAA GAAATGAACT TGAGGTCCCA

2401 GGAGGTTTTG TTGCCTTTTC ATTGATTAGA GACAATAAAT ATCTTGTAAC

2451 TTCCTAACCA GATCTGAGCT GTGCTCACAA TAATAATAAT GAAATCAGAT

2501 TCTTTGATGC TGGACTCAGG AGGGAAATCA TTAGCCAACT GTTGACTTAC

2551 TTATAGCTAG ATGTCTATGT GAGAAAGTAT AATATATATA TATACACATA

2601 TATATGACAT GTAAGAGTCA CTTTTATTTA TCTGTCTTTG TTCACTTATG

2651 AAGCCGGTAA CTGCAGCAGT ATGTTGGTGA TGTCATGATG CACAGAAGTC

2701 CCATGTGGAG TGTTTTTCCC ACACTGACAA CTTGGCCTCC TTTCTGTGTG

2751 TTCAGTCTGT TGTCTGAACT AACACTCCCG CGAGCACTAT ACTCTTTATA

2801 CTCTGATCCC CCTAGTTCAT CTTAAATTTG TCTGTGGCCC TGGCAAGATA

2851 GCGTACACAA GATTCCATGA CTCCAGAGCA TCTTGAAGAA ACATACATAT

2901 TTTGAAAGAG GGGAAATGTA GCAGATAGTT CACAAGCTGC GGGTTGTAGC

2951 TAAATATTCC ATTTCTTTGA AATCATGTTT CTAAATTCTT TACCATCAGA

3001 AAGAAAAGGA GTGTCATACA CTTTCAAGGG AAGGCTTGGT CTGCGTTTTC

3051 TGTGTTTGGA TTATTTTTAT ACTTTGCTGA TCTTTAAGCT ATCCATGGGG

3101 GAAATTTTAT ACCAACGAGT TAATAATTCT CATTCATCGT TTACACAATG

3151 TAACATGTGT CATACTGGGG CCAGCGAGAT GGCTCAGTAG GTAAAGGTGC

3201 TTGATGCTAA GCCCGGCAGC CTGTGTTTCA TCTACAGGAT GCACAACATA

3251 AAAGAAAAGA TCTGATTCCC ACAGGTTCTC TTCTGACCTA CACACACACA

3301 CACTAAAATA ACATTTAAAA ATATGTGCCA AATTATATTT GTTCGGGTGC

3351 CACCTTCCAC CAGCTTACCA CTACGGTAGA ACTGTCAAAT TCATCTCCCT

3401 GAATTTGTCT TAAAGGGGTG TCCATGCACA GGCCCAAGAG TCACCTCCAA

3451 TGAAATAAAT GTAATACTGA AGTATGCCAT GATGTTTGTT GTTTTCTTTC

3501 ATCGTAAGCC TGTAAGCAGG AAAAATACGT CAAATCAGAT AGAATAGAGC

3551 ATTTACCAGT GGTCGATGGC CTGGTCAGTC CTGTGCCGGG TGACTTAGGA

3601 CCAGGCACGT CAGCTCTCTG AGCCTCCCCT TCCCTTGTTG TCACAAGGGA

3651 ATAGAAGCAG AAGAAGCTGA GAGCCTCCCT ATTCCCAGAT GCCCTGGTGG

3701 AATGACCTGC CTCTCTGCCG TTTCTGCCAA CGTGTTGGTG CTATAAGCTG

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3751  CTTCAAATAC CAGTTTGTCT GTAGTGTGTA CTCACCTAAT CACTTGTTAT
3801  CCAGTGCCTG TTCTAGGTTT ATGGACTTAA CTATTTCTGT GATGTTTCAT
3851  TTTTAGCCAT GTTAACTCCT AACACATATT CTCTTATGTC TCAGTAAAGT
3901  TTCATTTGAT AAGTTGTTGA GATTCTGTTA TTTGATAATA TTCTTCGGCT
3951  GTCCATCCAG CATCTTAATC ACTTTAAAAC TGTGATTGTT ATTTGCAACT
4001  CTGTTCTTTG GAAAGAATAA AAGCATTTTT TTTCACTTGC TAACATGCTC
4051  ACAAATGTGA GAGAAGAGTC ATTAAAAGCT TTACTTACTG GGTCAGTGCG
4101  TCATTGACTC CTTTCTGTGT TTTGCCCAAT AAATTAATAA AAGACCAAAA
4151  AAAAAAAAAA AAAAAAAAAA AAAAA
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Figure 4: amino acid sequence of human Gγ12 (SEQ ID NO:4)

1. MSSKTASTNN IAQARRTVQQ LRLEASIERI KVSKASADLM SYCEEHARSD
51. PLLIGIPTSE NPFKDKKTCI IL

FIGURE 5